



USDA Forest Service - Southern Research Station - 320 Green Street, Athens GA 30602 - <http://www.srs.fs.usda.gov/disturbance>



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## Outreach Activities:

- Seven organized groups, totaling 68 people, visited the Brender Demonstration Forest during July. These groups included a USDA Forest Service, FIA training session on ozone detection and severity; a Mercer University outdoor lab on forest succession; an interdisciplinary group from Oconee Ranger District, DNR, Georgia Forestry Commission, Southern Research Station, and Brender Forest, reviewing future timber sale projects; a planning session for Southeast Wood Producers and cooperators; a meeting of contractors and Forest Service on road projects on the Hitchiti, which included the installation of a new type of bottomless culvert; and a group from the Middle Georgia Camera Club.

- A total of 43 people came by the Brender Forest office for information, and 22 people hiked the Hitchiti Interpretive Trail.



Ozone damage to pine. (Photo by R. Anderson, US Forest Service).

## Technology Transfer:

- Joe O'Brien and Kat Mordecai organized and held two workshops on hazardous fuels management in Florida. The workshop held at the Kovens Center at Florida International University in Miami focused on issues related to tropical pine rocklands. Thirty land managers attended and shared their experiences with various techniques and discussed knowledge gaps and research issues they would like to see addressed. The second workshop was held at Bok Tower Gardens in Winter Haven, FL. The 32 attendees were land managers from local, state, federal agencies and NGOs and they focused on hazardous fuels issues in pine flatwoods. The information gathered will be summarized in a guide for best management practices and the research recommendations will be shared



Participants at the Pine Rockland meeting in Miami.

with the Joint Fire Sciences Program and the Southern Research Station.

- The Wood Quality Consortium held its annual meeting at the University of Georgia. Alex Clark, a co-director of the Consortium attended and made a presentation titled "Effect of initial planting density on strength and stiffness of loblolly pine at age 20."



Participants at the Pine Flatwoods meeting in Winterhaven.

- Eran Kilpatrick, a student at Clemson University, successfully defended his dissertation, which was a continuation of work on the Southeastern Piedmont site of the National Fire and Fire Surrogate Study (FFS). Eran examined the impacts of fuel reduction treatments on diversity of small mammals, birds, and herpetofauna. Eran also completed the first national analysis associated with

## Technology Transfer:

the FFS by developing path models of treatment impacts to herpetofauna across eastern FFS sites. Eran will receive his Ph.D. at Clemson's graduation ceremony in August. He accepted a position as Assistant Professor of Biology at the University of South Carolina, Salkehatchie in Walterboro. Congratulations to Dr. Eran Kilpatrick.

- Stanturf attended the Chief's Review of Region 8 and the Southern Research Station. John only participated one day, but made a presentation on "Living with disturbance in southern forests." One of the Emerging Issues from the review is the smoke management "bottleneck," with the suggestion that the Southeast can be a laboratory for collaborative solutions. A final report from the review will be available by the end of the fiscal year.



Smoke plume over Everglades National Park. (Photo D. Wade)

- Ken Forbus and Scott Goodrick represented the project at a workshop held in Raleigh, North Carolina that was designed to help draft a Forest Service Research Strategy for High Performance Computing (HPC). High performance computing is the use of multiple processors linked together to solve a computationally intensive task, such as weather or climate predictions. In developing this strategy, we hope to make HPC more accessible as a research tool across the Forest Service Research and Development community. Two groups in the Southern Research Station have expressed an interest in our HPC facility, the Southern High Resolution Modeling Center.



Custom Beowulf Clusters would be used for High Performance Computing.

*Project Leader's Report*

## Meetings/Reports:

- The Planning Committee for the 14th Biennial Southern Silvicultural Research Conference met in Athens to review the Classic Center facilities and select papers and posters to be presented at the conference next February. Unit staff attending the meeting included John Stanturf (Conference Chair), Ken Outcalt (Poster Session Chair), and Lynne Breland (Conference Coordinator). The Committee selected presentations for 104 oral papers and 62 posters. The conference website is still under construction but some information is available at <http://srs.fs.gov/bssrc2007>.

- Ken Outcalt, Mac Callaham, and Dave Cleland attended the Workshop for Cumulative Watershed Effects of Fuel Management, held in Atlanta. The meeting was for authors of chapters and interested parties to discuss the outline for a General Technical Report on cumulative watershed effects of fuel reduction management practices in eastern forests. Stanturf and Callaham, along with others from the Southern Station, are to author a chapter in this GTR on the effects of fuels management on soils. Ken Outcalt, Tom Waldrop, and Dave Cleland are lead authors on other chapters.

- John Stanturf met with Dr Kwang-Soo Chung, the new Director General of the Korea Forest Research Institute, and staff to discuss the arrangements for KFRI hosting the IUFRO Forest Landscape Restoration Conference next May in Seoul. John and Dr. Sung, KFRI contact, toured the COEX facility in Seoul where the meeting will be held. This is the same facility that will be used for the IUFRO World Congress to be held in 2010. Stanturf and Sung also visited potential sites for field trips. Because of transportation challenges, they decided to have only post-conference tours (1-day tour in the vicinity of Seoul and 3-day tour to central Korea and the east coast).

- John Stanturf visited Dr. Jamsran Tsogtbataar, Director of the Institute of Geocology of the Mongolian Academy of Sciences in Ulaanbaatar, Mongolia with Dr. Yeong-Dae Park, Seoul National University and Nyam-Osor Batkhui, Professor of Forestry at the National University of Mongolia. The group visited three forest types in northern Mongolia to view the effects of wildfire, post-fire restoration, illegal logging, and insect outbreaks. Mongolian forests are at the southern extent of the boreal forest and the landscapes visited were reminiscent of the eastern slope of the Northern Rocky Mountains in Montana. While in Ulaanbaatar, Stanturf met with Jeff Goodson, Senior USAID Program Manager at



## Meetings/Reports:

the embassy to discuss a potential fire training project.

- John Stanturf, Tom Waldrop, and Ken Outcalt attended the Threats Science Area Meeting for project leaders and team leaders, in Atlanta. The group reviewed the six Focus Areas and planned the session for the following day for all scientists in the Threat Area (to be reported next month).

## Visitors:

- Les Groom, Project Leader of the Utilization of Southern Forest Resources RWU (SRS-4701), located in Pineville, Louisiana, visited with John Stanturf and the members of the Wood Quality team. Les met with the Wood Quality Team to become familiar with the team members and with John to discuss the transfer of personnel from SRS-4104 to 4701 as part of the Station Realignment. The transfer will occur on October 1, 2007.

## Personnel News:

- A permanent, full-time Chemist position (GS 9/11) is advertised on USAJobs. This position is responsible for running the Soil and Plant Analysis Lab in the unit that provides support services for several scientists for routine analysis, as well as methods development.

- Gayle Gilmore, office automation assistant/student, is leaving to move to Savannah, start a new job with Wachovia Insurance, and get married (in that order). We wish Gayle and husband-to-be Russell Gilbert all the best.



- Welcome to Rebecca Garner, our new student worker/office automation assistant. Rebecca is a Freshman at the University of Georgia, majoring in Spanish and Foreign Language

Education. She has been well-trained by Gayle, and we plan to keep Rebecca busy for at least the next four years.

- John Stanturf received the Chief's Honor Award for Distinguished Science.



## Partnerships:

- Gary Achtemeier and Scott Goodrick met with Gary Curcio of the North Carolina Division of Forest Resources to discuss potential collaboration between the state of North Carolina and the Southern High Resolution Modeling Consortium (SHRMC). They focused on the potential to develop a database system for tracking emissions from both prescribed fires and wildfires. They drafted a database design document, along with descriptions of potential user interfaces that could be implemented to meet the needs of North Carolina.

- Russell Gentry, Karl Brohammer and Rob Szurgot of the Advanced Wood Products Laboratory at Georgia Tech and Laurie Schimleck of the Warnell School of Forest Resources at the University of Georgia visited with Alex Clark to discuss a new cooperative research study. The main objective of the cooperative study is to examine the effect of juvenile wood on the strength, stiffness, and shear properties of plantation-grown loblolly pine.

- John Stanturf initiated a cooperative agreement with Eric Vance of NCASI (National Council for Air and Stream Improvement) in Research Triangle Park, North Carolina for a "Gap Analysis for Productivity Research Investments." They will identify what investments in research can produce the greatest benefits to the forest industry and forest sector as a whole, in the specific areas of increasing forest productivity, reducing costs/increasing efficiency across all facets of production, reducing the environmental footprint/quantifying benefits associated with increased productivity, and uses of wood in the future, including potential new value streams.



- Gary Achtemeier and Tom Mote, University of Georgia Department of Geography, initiated a cooperative agreement to purchase and install new PM 2.5 samplers at the Savannah River Site to further their on-going research on validating smoke models. The new particulate matter samplers will collect smoke data for the evening through the early morning following selected prescribed burns.

## Funding:

- Dana Camp, former student worker with the unit, was awarded a grant of \$1,000 to travel to the Ecological Society of America meetings, to be held in August in Memphis. This competitive prize is awarded to undergraduate students who have completed research projects under the National Science Foundation program Research Experience for Undergraduates. The purpose of the award is to provide travel funds for these students to attend and present data at a national meeting. Dana will present a poster detailing the results of her REU research project, which was conducted under the direction of Mac Callahan and Paul Hendrix, UGA. More details on this next month!

- John Stanturf received \$60,000 for a Productivity Gap Analysis from the Vegetation Management and Protection Staff in the Washington Office. The funds will support the cooperative agreement with NCASI, reported above.

- Gary Achtemeier received \$25,000 from the Fire & Aviation Management staff in State and Private Forestry in the Washington Office to support on-going efforts to implement BlueSky in the South.

## Science Highlight:

### Modeling Fire Behavior in Grass Fires Scott Goodrick

Grass fires, although not as intense as forest fires, present a major threat to life and property in regions of drought in the Great Plains of the United States. Since December 2005, major prairie fires in Texas burned nearly 5 million acres and destroyed over 400 homes. During the week of 16 March 2006, 11 people were killed and an estimated 10,000 head of livestock lost, making this one of the worst ever December-March fire periods for the state of Texas.

As an aid to fire management, various models have been developed to describe fire behavior. However, these models strongly emphasize fuels and fail to consider the role of convective dynamics within the atmosphere and possible feedback mechanisms between the fire and the atmosphere. This is partly understandable as there is little in the way of data concerning convective dynamics in the vicinity of wildland fires. To fill this gap, an intensive field measurement campaign called FireFlux was conducted during February 2006 near Houston, Texas. The campaign used a variety of instrument platforms to collect mean

## Science Highlight:

and turbulence data at multiple levels within and immediately downwind of a 155 acre tall-grass prairie burn unit.

The experimental burn was intended to replicate a natural wildland grass fire as closely as possible. Fire ignition occurred along the upwind edge of the burn unit and the fire was allowed to spread through a collection of instruments measuring temperature, moisture wind speed, and CO<sub>2</sub> at various levels in the atmosphere with sampling frequencies of 60 hertz. This data set will provide detailed information on atmospheric fluxes of heat, momentum and moisture within the combustion zone as well as within the fire plume. Preliminary analyses show combustion-zone temperatures exceeding 920 °C and vertical velocities exceeding 10 m s<sup>-1</sup>. Fire induced winds more than doubled the ambient wind speed and lead to rates of spread exceeding those predicted by Behave (fire behavior model).

The Fireflux field experiment was designed to measure heat, momentum and moisture fluxes from a simulated wildfire in a Texas coastal tall grass prairie. These measurements are intended to serve as a test bed for evaluating coupled fire-atmosphere models. Traditionally fire behavior models have been evaluated based on their ability to estimate a fire's rate of forward spread. For a coupled fire-atmosphere model, which is actually calculating the transport of heat, moisture and momentum, such a simplistic measure of validation is less desirable. Comparing measured and modeled fluxes in the vicinity of a fire provides a more robust means of validating model performance as it is more directly related to the underlying physics governing fire spread. Understanding the physics of fire spread on simple cases such as prairie fire will provide more confidence in model performance as the models are applied to more complex conditions, such as modeling the initiation and propagation of crown fires.



East Amarillo Complex Fire -- Approximately 850,000 Acres burned. (Photo Texas Forest Service)



## News from Around the Region:

- Dean Richard Porterfield, Warnell School of Forestry, announced his intention to retire in December 2006.



- The office building housing the Delta Ranger District of the National Forests in Mississippi burned to the ground last month. The building in Rolling Fork also housed other USDA agencies. Early indications were the fire was electrical in origin.

- The Wildfire Risk Map, produced for the Southern Group of State Foresters, is almost ready for release, according to Alan Dozier of the Georgia Forestry Commission. Alan presented some of the products released for the State of Georgia at the Chief's Review.

- A new USDA Agricultural Wildlife Conservation Center (AWCC) is slated for Madison, Mississippi, to expand efforts to preserve wildlife and wildlife habitat on private lands. Additionally, USDA awarded \$1.6 million in competitive grants to develop and evaluate technological tools for fish and wildlife habitat improvements. The grants will be administered by the newly opened AWCC. The AWCC is part of USDA's Natural Resources Conservation Service (NRCS) and will support the development of wildlife habitat technology through a competitive grants program available to many cooperative conservation partners, including fish and wildlife conservation groups, universities and state agencies. AWCC will ensure new technology is available to farmers and ranchers nationwide through NRCS field offices. <http://www.usda.gov/wps/portal/usdahome?contentidonly=true&contentid=2006/06/0220.xml>

- A working ranch and tens of thousands of acres of wilderness inhabited by bears, panthers and other species were handed over to the state Monday in Florida's biggest-ever purchase of land for environmental preservation. The \$350 million purchase of the Babcock Ranch, including \$310 million in state money and \$40 million from Lee County, Florida, puts nearly 74,000 largely undeveloped acres in southwestern Florida—or about 115 square miles—into state hands to be conserved. It will create an almost unbroken stretch of brush and swamp wilderness extending

from Lake Okeechobee to the Gulf of Mexico. The land was purchased from Kitson and Partners, who bought the ranch from the Babcock family; Kitson and Partners, will retain 17,000 acres that will be developed as a new town for about 19,000 homes. The ranch itself will continue as a working cattle operation. (Source: Associated Press)

- The United Kingdom and the state of California (by itself one of the largest economies in the world) have agreed to work together to reduce greenhouse gases linked to global warming and to investigate potential cooperation on an emissions trading scheme. California's Republican Gov. Arnold Schwarzenegger has pursued a strong environmental agenda, putting him at odds with fellow Republican President George W. Bush, who withdrew the United States from the Kyoto Protocol on global warming in 2001, saying its caps on greenhouse gases would cost jobs. In other news, the UK and California also agreed to work together on stem cell research, another area in which the state government in California is taking an alternate path than the federal government. Emissions trading schemes, such as the European Union's, work by placing mandatory limits on the production of greenhouse gases. The U.S., however, supports voluntary measures to reduce emissions. (Source: Reuters)

- The Conservation Security Program (CSP) is a "green" payment program of the Department of Agriculture that pays farmers who make water, land and wildlife conservation part of their daily operations. It often is cited as a possible new path for U.S. farm supports that would comply with world trade rules. Agriculture Undersecretary Mark Rey estimated at a House Agriculture subcommittee review of USDA stewardship programs that full implementation of the CSP would cost \$9 billion-\$10 billion a year if offered nationwide. CSP, created under the 2002 Farm Bill, was allotted \$259 million this fiscal year and is offered in 300 watersheds, a small fraction of U.S. territory. Rey said 19,200 CSP contracts were in force on 14.6 million acres at an annual average cost of \$11,000 although payments range from \$500 to \$45,000. Some farm groups have disputed the high implementation cost estimate advanced by Rey, saying that not all agricultural land would qualify for the program. (Source: Reuters)

- A Bilateral Science and Technology Agreement has been reached between Sweden and the U.S. and the first activity under the agreement, a Department of Energy biofuels workshop, was held with officials from Sweden's Ministry of Sustainable Development and A/S Karsner. (Source: US Department of State)

- A Swedish researcher was awarded the top meteorological prize by a UN agency. For his pioneering research in numerical weather prediction, Swedish professor, Lennart Bengtsson, has been awarded the prestigious "IMO" Prize in meteorological science, the United Nations World Meteorological Association (WMO) has announced. (Source: [unnews@un.org](mailto:unnews@un.org))

### Photos from the Masthead: Soils Laboratory



Perkin Elmer 2000 DV Inductively Coupled Plasma – Optical Emission Spectrometer (ICP-OES)



Varian-Cary 100 Conc UV-Vis Spectrophotometer



Lachat QuikChem 8000 Series Flow Injection Analyzer



Perkin Elmer 2400 Series II CHNS/O Elemental Analyzer



## FY 2006 Publications (\* denotes new publication this month)

### Refereed Journals and Book Chapters

Brockway, D.G., **Outcalt, K.W.**, Boyer, W.D. 2006. Longleaf pine regeneration ecology and methods. Chapter 4 in Jose, S., Jokela, E.J., and Miller, D.L., editors. *The Longleaf Pine Ecosystem: Ecology, Silviculture, and Restoration*. Springer Verlag, New York; pp. 95-133.

Brose, P.H. and **Waldrop, T.A.** 2006. Fire and the origin of Table Mountain pine – pitch pine communities in the southern Appalachian Mountains, USA. *Canadian Journal Forest Research* 36: 710-718

\***Clark III, A.**, R.F. Daniels, and J. H. Miller. 2006. Effect of controlling herbaceous and woody competing vegetation on wood quality of planted loblolly pine. *Forest Products. Journal* 56(2): 40-46.

\***Clark III, A.**, R. F. Daniels, and L. Jordan. 2006. Juvenile / mature wood transition in loblolly pine as defined by annual ring specific gravity, proportion of latewood, and microfibril angle. *Wood and Fiber Science* 38(2): 292-299.

\***DiCosty, R.J.**, **Callaham, M.A.**, **Stanturf, J.A.** 2006. Atmospheric deposition and re-emission of mercury estimated in a prescribed forest-fire experiment in Florida, USA. *Water, Air, and Soil Pollution* doi 10.1007/s11270-006-9149-3.

Frank, J.H., Foltz, J.L., and Almquist, D.T. 2005. The female of *Oxybleptes meridionalis* (Coleoptera: Staphylinidae: Staphylininae) and range extension for *Oxybleptes*. *Florida Entomologist* 88(2):199-200. (Unit funded under agreement #02-1A-11330136-030; funding source Joint Fire Sciences Program)

Hoadley, J.L., Rorig, M.L., Bradshaw, L., Ferguson, S.A., Westrick, K.J., **Goodrick, S.L.** and Werth, P., 2006. Evaluation of MM5 model resolution when applied to prediction of National Fire Danger Rating indexes. *International Journal of Wildland Fire* 15: 147–154.

\*Jones P. D., L. R. Schimleck, G. F. Peter, R. F. Daniels, **A. Clark III.** 2005. Non-destructive estimation of *Pinus taeda* L. tracheid morphological characteristics for samples from a wide range of sites in Georgia. *Wood Science Technology* (39): 529-545.

\*Jones, P. D., L. R. Schimleck, G. F. Peter, R. F. Daniels and **A. Clark III.** 2006. Nondestructive estimation of wood chemical composition of sections of radial wood strips by diffuse reflectance near infrared spectroscopy. *Wood Science and Technology* (40): 226-238.

\***Jordan, L.**, He, R., D. B. Hall, **A. Clark III** and R. F. Daniels. 2006. Variation in loblolly pine cross-sectional microfibril angle with tree height and physiographic region. **Wood and Fiber Science** 38(3): 390-398.

**Jordan, L.**, Daniels, R.F., **Clark, A. III**, He, R. 2005. Multilevel nonlinear mixed-effects models for the modeling of earlywood and latewood microfibril angle. *Forest Science* 51(4): 357-371.

**Liu, Y.-Q.** 2005. Atmospheric response and feedback to radiative forcing from biomass burning in tropical South America. *Agricultural and Forest Meteorology*. 133, 40-53.

**Liu, Y.-Q.** 2005. Land breeze and thermals: A scale threshold to distinguish their effects. *Advances in Atmospheric Science*, Vol. 22, No. 6, 889-902

**Liu, Y.-Q.**, Fu, R., Dickinson, R. 2005. Smoke aerosols altering South American monsoon. *Bulletin American Meteorological Society* 86(8): 1062-1063.

**Liu, Y.-Q.**, Avissar, R. 2005. Modeling of the global water cycle - analytical models. In M. G. Anderson, Ed. *Encyclopedia of Hydrological Sciences*. John Wiley & Sons, pp. 3456.

Logan, S.R., **Edwards, M.B.**, Shiver, B.D. 2005. Survival and growth of seed trees 20 years after a natural regeneration cut in the Piedmont of Georgia. *Southern Journal of Applied Forestry* 29(4): 173-178.

\*Meier, C.E., **Stanturf, J.A.**, Gardiner, E.S. 2006. Litterfall in the hardwood forest of a minor alluvial-floodplain. *Forest Ecology and Management*. Corrected proof available on-line.

Moser, W.K., **Wade, D.D.** 2005. Fire exclusion as a disturbance in the temperate forests of the USA: Examples from longleaf pine forests. *Scandinavian Journal of Forest Research* 20 (Suppl 6): 17-26.

Naeher, Luke P., **Achtemeier, Gary L.**, Glitzenstein, Jeff S., MacIntosh, David, Streng, Donna R. 2006. Real-time and time-integrated PM<sub>2.5</sub> and CO from prescribed burns in chipped and non-chipped plots firefighter and community exposure and health implications. *Journal of Exposure Science and Environmental Epidemiology*. <http://www.nature.com/doifinder/10.1038/sj.jea.7500497> on 31/05/06 doi: 10.1038/sj.jea.7500497.

**Outcalt, K.W.** 2006. Prescribed burning for understory restoration. 2006. Box 10.1 in Jose, S., Jokela, E.J., and Miller, D.L., editors. *The Longleaf Pine Ecosystem: Ecology, Silviculture, and Restoration*. Springer Verlag, New York; pp. 326-329.

Qu, J., Hao, X., Yang, R., Sommers, W., Dasgupta, S., Bhoi, S., Kafatos, M., **Liu, Y.-Q.**, **Achtemeier, G.**, Riebau, A.R., Coronado, P. 2005. Bridging Earth observations: remote sensing measurements, fire modeling, and air quality decision support system in the eastern United States. *Earth Observation Magazine* 14 (6).

Rall, A.E. 2004. Effects of longleaf pine management practices on the herpetofauna of south Alabama. M.S. Thesis, Auburn University. 61p. (Unit funded under agreement #02-1A-11330136-030; funding source Joint Fire Sciences Program)

**Reilly, M.J.**, Wimberly, M.C., Newell, C.L. 2006. Wildfire effects on plant species richness at multiple spatial scales in forest communities of the southern Appalachians. *Journal of Ecology* 94: 118-130.

**Reitz, R.** 2005. Forests and people: The symbiotic relationship. Pp. 89-93 *In American Perspectives on the Wildland/Urban Interface. The National Wildland/Urban Interface Fire Program*; 113 p.

Rhy, Soung-Ryoul, Chen, Jiquan, Crow, Thomas R., Saunders, Sari. C. 2004. Available fuel dynamics in nine contrasting forest ecosystems in North America. *Environmental Management* Vol. 33, Supplement 1, pp. 87–107.

Rompere, Ghilain. 2003. Successful nesting of the sharp-shinned hawk (*Accipiter striatus*) in a longleaf pine stand in southern Alabama. *Alabama Birdlife* 49(1):10-13. (Unit funded under agreement #02-1A-11330136-030; funding source Joint Fire Sciences Program)

Saunders, S.C., J. Chen, T.D. Drummer, E.J. Gustafson, and K.D. Brosofske. 2005. Identifying scales of pattern in ecological data: A comparison of lacunarity, spectral and wavelet analyses. *Ecological Complexity* 2: 87-105.

\*Schimleck, L.R., P. D. Jones, **A. Clark III**, R. F. Daniels, and G. F. Peter. 2005. Near infrared spectroscopy for the nondestructive estimation of clear wood properties of *Pinus taeda* L. from the Southern USA. *Forest Products Journal* 55(12): 21-28.

Schulte, Lisa A. and Mladenoff, David J. 2005. Severe wind and fire regimes in northern forests: Historical variability at the regional scale. *Ecology*, 86(2): 431-445.

Sharp, N.W. 2005. Demography of small mammal populations in longleaf pine undergoing restoration. M.S. Thesis, Auburn University, 84p. (Unit funded under agreement #02-1A-11330136-030; funding source Joint Fire Sciences Program)

Varner, J.M. III, Gordon, D.R., Putz, F.E., Hiers, J.K. 2005. Restoring fire to long unburned *Pinus palustris* ecosystems: Novel fire effects and consequences for long-unburned ecosystems. *Restoration Ecology* 13(3): 536-544. (Unit funded under agreement #02-1A-11330136-030; funding source Joint Fire Sciences Program)

\*Wimberly, M.C., Zhang, Y., **Stanturf, J.A.** 2006. Digital forestry in the wildland-urban interface. Chapter 10 in Shao, G. and Reynolds, K.M., editors, *Computer Applications in Sustainable Forest Management: Including Perspectives on Collaboration and Integration*. Springer Verlag, The Netherlands: p. 201-222.

### Proceedings and Reports

Blizzard, Elizabeth M.; van Lear, David H.; Wang, G. Geoff; **Waldrop, Thomas A.** 2006. Performance of mixed pine-hardwood stands 16 years after fell-and-burn treatments, in Connor, K.F., editor, *Proceedings of the 13th Biennial Southern Silviculture Research Conference*. Gen. Tech. Rep. SRS-92. Asheville, NC: U.S. Department of Agriculture, Forest Service, Southern Research Station. pp. 499-501.

Brockway, D., **Outcalt, K.**, Waites, J., Loewenstein, E. 2006. Comparative Analysis of Forest Reproduction Methods for Sustainable Management of Longleaf Pine Forest Ecosystems: Goethe State Forest. Establishment Report on file at the Andrews Forestry Sciences Laboratory, Auburn University, AL. 49pp.

Brockway, D., **Outcalt, K.**, Waites, J., Loewenstein, E. 2006. Comparative Analysis of Forest Reproduction Techniques for Sustainable Management of Longleaf Pine Forest Ecosystems: Blackwater River State Forest. Establishment Report on file at the Andrews Forestry Sciences Laboratory, Auburn University, AL. 43pp.

Brockway, D.G., **Outcalt, K.W.**, Tomczak, D.J., Johnson, E.E. 2005. Restoration of longleaf ecosystems. USDA Forest Service Southern Research Station General Technical Report SRS-83, Asheville, NC; 34 pp.

Brose, Patrick H.; **Waldrop, Thomas A.** 2006. Changes in the disturbance regime of upland yellow pine stands in the Southern Appalachian Mountains during the 20th century, in Connor, K.F., editor, *Proceedings of the 13th Biennial Southern Silviculture Research Conference*. Gen. Tech. Rep. SRS-92. Asheville, NC: U.S. Department of Agriculture, Forest Service, Southern Research Station. pp. 467-470.

**Brudnak, Lucy; Waldrop, Thomas A.; Rideout-Hanzak, Sandra.** 2006. A comparison of three methods for classifying fuel loads in the Southern Appalachian Mountains, in Connor, K.F., editor, *Proceedings of the 13th Biennial Southern Silviculture Research Conference*. Gen. Tech. Rep. SRS-92. Asheville, NC: U.S. Department of Agriculture, Forest Service, Southern Research Station. pp. 514-517.

**Clark, Alexander, III;** Daniels, Richard F.; Borders, Bruce E. 2006. Effect of rotation age and physiographic region on weight per cubic foot of planted loblolly pine, in Connor, K.F., editor, *Proceedings of the 13th Biennial Southern Silviculture Research Conference*. Gen. Tech. Rep. SRS-92. Asheville, NC: U.S. Department of Agriculture, Forest Service, Southern Research Station. pp. 344-346.

**Cleland, David,** Crow, Thomas, Saunders, Sari, Maclean, Ann, Dickmann, Donald. 2005. Characterizing historic and contemporary fire regimes in the Lake States. Final Report to the Joint Fire Science Program. 81 pp.

**Goodrick, S., Achtemeier, G. and Liu, Y.** 2006. Southern Smoke Simulation System - A framework for modeling smoke impacts from prescribed burning in the South. EPA 15th Annual Emission Inventory Conference, New Orleans, LA.

**Kennard, D, Fowler, C. T.,** Hubbard, W. and Rauscher, M. 2005. The Encyclopedia of Southern Fire Science. In: Kush, J.S., comp., *Longleaf Pine: Making Dollars and Sense*, *Proceedings Fifth Longleaf Alliance Regional Conference*, 2004 October 12-15, Hattiesburg, MS, Longleaf Alliance Report No. 8: 97-100. (SRS-4104-6009)

**Liu, Y.-Q.** 2005. Spatial relationships between SST and U.S. Wildfires, *Proceedings of the Sixth Fire and Forest Meteorology Symposium*, 25-27 October 2005, Canmore, AB, Canada, Paper 6.2, P1-6 (available in CD). [http://ams.confex.com/ams/6FireJoint/techprogram/programexpanded\\_302.htm](http://ams.confex.com/ams/6FireJoint/techprogram/programexpanded_302.htm)

**Liu, Achtemeier, Goodrick,** Modeling air quality effects of prescribed burn in Georgia with CMAQ-Daysmoke, *Proceedings of Workshop on Agricultural Air Quality: State of Science*, ed. V.P. Aneja, et al., pp 129-131.

**Mohr, Helen H.; Waldrop, Thomas A.** 2006. A simulation of wildfire behavior in piedmont forests, in Connor, K.F., editor, *Proceedings of the 13th Biennial Southern Silviculture Research Conference*. Gen. Tech. Rep. SRS-92. Asheville, NC: U.S. Department of Agriculture, Forest Service, Southern Research Station. pp. 507-509.

Myers, R., **O'Brien, J.**, Mehlman, D., Bergh, C. 2004. Fire management assessment of the highland ecosystems of the Dominican Republic. GFI publication number 2004-2a. The Nature Conservancy, Arlington, VA.

Myers, R., **O'Brien, J.**, Mehlman, D., Bergh, C. 2004. Evaluación del Manejo del Fuego en los Ecosistemas de Tierras Altas de la República Dominicana. GFI informe técnico 2004-2b. The Nature Conservancy, Arlington, VA.

Myers, R., **O'Brien, J.**, Morrison, S. 2006. Descripción General del Manejo del Fuego en las Sabanas de Pino Caribe (*Pinus caribaea*) de la Mosquitia, Honduras. GFI informe técnico 2006-1a. The Nature Conservancy, Arlington, VA.

Myers, R., **O'Brien, J.**, Morrison, S. 2006. Fuel management overview of the Caribbean Pine (*Pinus caribaea*) savannas of the Mosquitia, Honduras. GFI Technical Report 2006-1b. The Nature Conservancy, Arlington, VA.

**Outcalt, K.W.** 2005. Restoring structure and composition of longleaf pine ecosystems of the Gulf Coastal Plain. In: Kush, J.S., comp., *Longleaf Pine: Making Dollars and Sense*, Proceedings Fifth Longleaf Alliance Regional Conference, 2004 October 12-15, Hattiesburg, MS, Longleaf Alliance Report No. 8: 97-100. (SRS-4104-6009)

**Outcalt, K.W.** 2005. National Fire and Fire Surrogate Study, 7th Annual SMIC Meeting and Field Trip. October 2005. Solon Dixon Forestry and Education Center, Andalusia, AL [Report]

**Outcalt, K.W.** 2005. National Fire and Fire Surrogate Study, Fuels Treatment Workshop and Field Trip. October 2005. Solon Dixon Forestry and Education Center, Andalusia, AL [Report]

**Outcalt, Kenneth W.** 2006. Managing composition of piedmont forests with prescribed fire, in Connor, K.F., editor, Proceedings of the 13th Biennial Southern Silviculture Research Conference. Gen. Tech. Rep. SRS-92. Asheville, NC: U.S. Department of Agriculture, Forest Service, Southern Research Station. pp.531.

**Phillips, Ross J.; Waldrop, Thomas A.; Simon, Dean M.** 2006. Assessment of the FarSite model for predicting fire behavior in the Southern Appalachian Mountains, in Connor, K.F., editor, Proceedings of the 13th Biennial Southern Silviculture Research Conference. Gen. Tech. Rep. SRS-92. Asheville, NC: U.S. Department of Agriculture, Forest Service, Southern Research Station. pp. 521-525.

**Rideout-Hanzak, Sandra; Brudnak, Lucy; Waldrop, Thomas A.** 2006. Development of a photo guide for fuels in the Southern Appalachian Mountains of Northeast Georgia and Western South Carolina, in Connor, K.F., editor, Proceedings of the 13th Biennial Southern Silviculture Research Conference. Gen. Tech. Rep. SRS-92. Asheville, NC: U.S. Department of Agriculture, Forest Service, Southern Research Station. pp. 518-520.

Schoenholtz, S.H., **Stanturf, J.A.**, Allen, J.A., Schweitzer, C.J. 2005. Afforestation of agricultural lands in the Lower Mississippi Alluvial Valley: The state of our understanding. pp. 413-432. In L.H. Fredrickson, S.L. King, and R. M. Kaminski, eds. *Ecology and Management of Bottomland Hardwood Systems: The State of our Understanding*. University of Missouri-Columbia. Gaylord Memorial Laboratory Special Publication No. 10. Puxico, MO.

**Stanturf, J.A.** 2006. What is forest restoration? P. 23-36 in Proceedings of the 2006 Annual Meeting of the Korean Forest Society, Seoul National University, Seoul, Republic of Korea.

Stottlemeyer, Aaron D.; Shelburne, Victor B.; **Waldrop, Thomas A.; Rideout-Hanzak, Sandra;** Bridges, William C. 2006. Preliminary fuel characterization of the Chauga Ridges region of the Southern Appalachian Mountains, in Connor, K.F., editor, Proceedings of the 13th Biennial

Southern Silviculture Research Conference. Gen. Tech. Rep. SRS-92. Asheville, NC: U.S. Department of Agriculture, Forest Service, Southern Research Station. pp. 510-513.

**Waldrop, Thomas A.**; McIver, James. 2006. The national fire and fire surrogate study: early results and future challenges, in Connor, K.F., editor, Proceedings of the 13th Biennial Southern Silviculture Research Conference. Gen. Tech. Rep. SRS-92. Asheville, NC: U.S. Department of Agriculture, Forest Service, Southern Research Station. pp. 526-530.

**Waldrop, Thomas A.; Mohr, Helen H.**; Brose, Patrick H. 2006. Early dynamics of table mountain pine stands following stand-replacement prescribed fires of varying intensity, in Connor, K.F., editor, Proceedings of the 13th Biennial Southern Silviculture Research Conference. Gen. Tech. Rep. SRS-92. Asheville, NC: U.S. Department of Agriculture, Forest Service, Southern Research Station. pp. 471-474.

### Other Publications

**Goodrick, S. Stanturf, J., Sullivan, F., Outcalt, P., Gillmore, G., McCracken, R., Mundy, E.** 2005. Biennial Southern Silvicultural Research Conference Proceedings 1-12, 1980-2003. Archive and bibliography on CD-ROM.

**Outcalt, K.W.** 2005. Prescribed Burning Research in the Piedmont of Georgia. Demonstration Forest Project Hitchiti Experiment Forest, Jarrell, GA. [3-Panel Outdoor Display]

**Outcalt, K.W.** 2005. Prescribed Burning Research on the Hitchiti Experimental Forest. Demonstration Forest Project Hitchiti Experiment Forest, Jarrell, GA. [Information Card]

**Outcalt, K.W.** 2005. Long-term Dormant-Season Burning Study Located in the Palmetto/Gallberry Fuel Complex. Demonstration Forest Project Osecola National Forest, Olustee, FL. [Outdoor Display]

**Outcalt, K.W.** 2005. We can't keep fire out of these woods. We can only choose between prescribed burns or wildfire. Demonstration Forest Project Osecola National Forest, Olustee, FL. [Outdoor Display]

**Outcalt, K.W.** 2005. We can't keep fire out of these woods. We can only choose between prescribed burns or wildfire. Demonstration Forest Project Osecola National Forest, Olustee, FL. [Information Card]

**Outcalt, K.W.** 2005. Fire and Fire Surrogate Study in the Gulf Coastal Plain. October 2005 Solon Dixon Forestry and Education Center, Andalusia, AL [Bookmark]

**Outcalt, K.W.** 2005. Fire and Fire Surrogate Study in the Southern Coastal Plain. October 2005 Myakka River State Park, Sarasota, FL [Bookmark]

**Outcalt, K.W.** 2006. Dormant-Season Prescription Fires Reduce Hazardous Fuel Loads on the South Carolina Coastal Plain. Demonstration Forest Project, Jamestown, SC. [2-sided outdoor display]

**Waldrop, T.** 2006. Ecological impacts of fuel reduction: presentations at a workshop held 24-25 January 2006 in Asheville, North Carolina. CD-ROM available from the RWU-4104, Athens, GA.



## Abstracts and Posters

**Achtemeier, Gary L.**, and Luke Naeher. 2005. Measurements of ground-level PM<sub>2.5</sub> concentrations downwind from Southern prescribed burns. Sixth Symposium on Fire & Forest Meteorology and the 19th Interior West Fire Council Meeting, October 25-27, Canmore, Alberta, Canada. Sponsored by the American Meteorological Society [Poster]

**Achtemeier, Gary L.** 2005. On plume rise – matching Daysmoke with Briggs Equations for industrial stacks. Sixth Symposium on Fire & Forest Meteorology and the 19th Interior West Fire Council Meeting, October 25-27, Canmore, Alberta, Canada. Sponsored by the American Meteorological Society [Abstract]

Alahari, N., Sublette, K., Jennings, E., Thoma, G., Wolf, D., Duncan, K., **Callaham, M. Jr.**, Todd, T. 2005. Earthworms as ecoengineers in the restoration of oil and brine impacted soils following remediation. International Petroleum Environmental Conference, November 2005, Houston, Texas [Abstract]

**Callaham, M.A., Jr.**, G.G. Gonzalez, B.A. Snyder, C.Y. Huang, and P.F. Hendrix. 2006. Out of sight, out of mind: The invasion right under your feet. Poster presentation at USDA Forest Service National Conference on Invasive Species, Denver, CO, June, 2006. [no published abstract]

**Callaham, M.A.**, Richter, D.D., Hofmockel, M. 2005 Long-term land use effects on soil invertebrate communities in Southern Piedmont soils. Ecological Society of America annual meeting, 8-11 August, Montréal, Canada [Poster]

**Callaham, M.A., Jr.**, **Stanturf, J.A.**, Boerner, R.E.J. 2005. Viewing ecosystem restoration through the glass of soil ecology: Making use of the illuminated ped. Symposium Honoring Dr. David C. Coleman, 28-29 October, Athens, Georgia [Poster]

**Callaham, M.A. Jr.**, Todd, T.C., Kitchen, D.J., Blair, J.M., Williams, M.A., Rice, C.W. 2005. Long-term studies on soils and soil biology in a Kansas tallgrass prairie: Stories that only time can tell. Invited symposium presentation at the Soil Science Society of America Annual Meeting, 6-10 November, Salt Lake City, Utah [Abstract]

**Camp, D.L.**, **S.R. Bennett**, **M.A. Callaham, Jr.**, and P.F. Hendrix. 2006. Native and exotic earthworm effects on C and N dynamics in a growth chamber experiment. Poster Presentation at 12th Annual Ecology Student Symposium at the University of Georgia, Institute of Ecology, Athens, GA. [Published abstract]

Canfield, J.M., Linn, R., Cunningham, P., **Goodrick, S.L.** 2005. Modeling effects of atmospheric stability on wildfire behavior. Sixth Symposium on Fire & Forest Meteorology and the 19th Interior West Fire Council Meeting, October 25-27, Canmore, Alberta, Canada. Sponsored by the American Meteorological Society [Abstract]

Cunningham, P., **Goodrick, S.L.** 2005. High-resolution numerical model simulations of fire plume dynamics. 2005. Sixth Symposium on Fire & Forest Meteorology and the 19th Interior West Fire Council Meeting, October 25-27 Canmore, Alberta, Canada. Sponsored by the American Meteorological Society [Poster]

**DiCosty, Ralph J.**, **Callaham Jr., Mac A.**, **Stanturf, John A.** 2005. Atmospheric deposition and re-emission of mercury estimated in a prescribed forest fire experiment in Florida, USA. Soil Science Society of American Annual Meeting, 6-10 November, Salt Lake City, Utah [Poster]

Gardiner, E.S. and **Stanturf, J.A.** 2006. The utility of poplars and willows for restoring forests in riparian zones. In Abstracts International Poplar Symposium IV, Tang, L., Fang, S., Huang, M., Zhuge, Q., Li, H., and Chen, Y., compilers. 5-9 June 2006, Nanjing, China; p. 131. [Abstract]

Giai, C., **Callaham, M.A. Jr.**, and Boerner, R.E.J. 2006. A mechanistic approach to determining why fire and thinning affect soil organic matter and nutrient status in Appalachian oak forests. Central Hardwoods Forest Conference, February 27-March 1 2006, Knoxville, TN [Poster]

**Goodrick, S.L.** 2005. Building historical gridded weather data sets for fire program analysis. Sixth Symposium on Fire & Forest Meteorology and the 19th Interior West Fire Council Meeting, October 25-27, Canmore, Alberta, Canada. Sponsored by the American Meteorological Society [Poster]

**Goodrick, S.L.**, Cunningham, P. 2005. A mechanism for the formation of transverse horizontal vortices on wildland fires. Sixth Symposium on Fire & Forest Meteorology and the 19th Interior West Fire Council Meeting, October 25-27, Canmore, Alberta, Canada. Sponsored by the American Meteorological Society [Abstract]

**Goodrick, S.L.**, Hanley, D.E. 2005. Atmospheric teleconnections and wildfires in the southeastern United States. Sixth Symposium on Fire & Forest Meteorology and the 19th Interior West Fire Council Meeting, October 25-27, Canmore, Alberta, Canada. Sponsored by the American Meteorological Society [Poster]

Hanley, D.E., Cunningham, P., **Goodrick, S.L.** 2005. The interaction between a wildfire and a sea-breeze front. Sixth Symposium on Fire & Forest Meteorology and the 19th Interior West Fire Council Meeting, October 25-27, Canmore, Alberta, Canada. Sponsored by the American Meteorological Society [Poster]

Linn, R.R., Canfield, J., Winterkamp, J., Cunningham, P., Colman, J., Edminster, C., **Goodrick, S.L.** 2005. Numerical simulations of fires similar to those of the international crown fire modeling experiment. Sixth Symposium on Fire & Forest Meteorology and the 19th Interior West Fire Council Meeting, October 25-27, Canmore, Alberta, Canada. Sponsored by the American Meteorological Society [Abstract]

**Liu, Y.-Q.**, **G. Achtemeier** and **S. Goodrick.** 2005. CMAQ-Daysmoke as a Smoke and Air Quality Management Technique: A Case Study of a Prescribed Burning in Georgia. In: Proceedings Sixth Fire and Forest Meteorology Symposium, October 25-27, Canmore, AB, Canada [Abstract]

**Liu, Y.** 2006. A physical based forest fuel moisture scheme for high-resolution fire modeling. 2005. In: Proc. 2006 Annual Meeting of the American Meteorological Society, 30 January 22 February 2006, Atlanta, GA [Abstract]

**Outcalt, K.W.**, Wade, D. 2005. Response of a mixed longleaf (*Pinus palustris*) and loblolly pine (*Pinus taeda*) community to long-term dormant season prescribed burning. Ecological Society of America annual meeting, 8-11 August, Montréal, Canada [Poster]





## Publications:

**Outcalt, K.W.** 2005. Frequency and season of prescription fires to reduce hazardous fuel loads on the lower Piedmont of Georgia. In: Proceedings of the Annual Joint Fire Science Program Principal Investigator Workshop, November 1, San Diego, California. [Poster]

Sanchez, Felipe, Coleman, M., Garten, C.T., Luxmoore, R., **Stanturf, J.A.**, Wullschlegel, S.D. 2005. Soil carbon, after three years, under short rotation woody crops grown under a range of nutrient and water availability. Soil Science Society of American Annual Meeting, 6-10 November, Salt Lake City, Utah [Abstract]

**Stanturf, J.A.**, Burbridge, P.R., Gardiner, E.S., Perdue, J.H. 2005. Disturbance in the face of climate change: Incorporating disturbance into management of coastal forests. International Workshop on the Scale of Natural Disturbances from Tree to Stand; 29 September to 1 October, Palanga, Lithuania; Lithuanian Forest Research Institute, Kaunas, Lithuania. [Abstract]



## Upcoming Events:

### 2006

- Aug 6-11 Eighth International Conference on Mercury as a Global Pollutant Madison, WI; <http://www.mercury2006.org/>; DiCosto to attend and present paper
- Aug 6-11 Ecological Society of America annual meeting, Memphis, TN; <http://www.esa.org/memphis/>
- Aug 8-10 Forest and Water in a Changing Environment Beijing, China; Chinese Academy of Forestry, Beijing Forestry University and Southern Research Station.
- Aug 22-25 5th European Conference on Ecological Restoration: "Land use changes in Europe as a challenge for restoration ecological, economical and ethical dimensions" University of Greifswald, Germany <http://www.uni-greifswald.de/SER2006>
- Aug 28-Sep 1 IEA Bioenergy Task 29, Task 31 and Task 39, International Workshop "Biofuels and Bioenergy: Challenges and Opportunities," University of British Columbia, Vancouver Canada; <http://www.ieabioenergytask31.org/>
- Sep 11-14 Baltic-Scandinavian Disturbance Network annual meeting, Tromsø, Norway with field excursions to Lapland in Finland (Alta, Lakselv and Kilpisjärvi); <http://www.eau.ee/~ecosyst/index.php?page=coming>
- Sep 24-26 SESAF Meeting, Auburn, AL
- Sep 25-28 2006 biennial meeting Short Rotation Woody Crops Operations Working Group, Red Lion Inn, Pasco, Washington; tentatively, joint meeting with Poplar Council of Canada, US Poplar Council, IUFRO Temperate Short Rotation Forestry Working Party 1.03.02, and SAF Agroforestry Working Group;
- Sep 25-27 UFR0 Oak Silviculture Working Party (1.06) meeting, Stevens Point, WI; optional pre-conference field trip to SW WI on Sept 21-23, and optional post-conference tour to northern WI on Sept 28-30.
- Sep 26-19 Patterns and Processes in Forest Landscapes; Consequences of



## Upcoming Events:

- Human Management, University of Bari, Italy; IUFRO 8.01.03 Landscape Ecology; <http://www.greenlab.uniba.it/events/iufro2006/>
  - Oct 4-7 IUFRO and EFI International Meeting, "Ecosystem Goods and Services from Planted Forests," Bilbao, Spain; <http://www.iefc.net>
  - Oct 10-13 Conference on "Sustainable Forest Management with Fast Growing Plantations", Charleston, SC; contact Dave Wear [dwear@fs.fed.us](mailto:dwear@fs.fed.us)
  - Oct 25-29 Society American Foresters Annual Meeting, Pittsburgh, PA
  - Oct 23-27 Knowledge management in forestry conference, sponsored by KnowForAlp, hosted by Forest Research Institute Baden Württemberg, Freiburg, Germany
  - Nov 7-9 2nd National Experimental Forest and Range Workshop, Bent Creek Experimental Forest, Asheville, North Carolina
  - \*Nov 7-9 Shortleaf Pine – Restoration and Ecology in the Ozarks Symposium, Springfield, MO; [http://www.mdc.mo.gov/science/sl\\_pine/](http://www.mdc.mo.gov/science/sl_pine/)
  - Nov 8-9 National Agenda 2020 Forest Productivity and Technology Workshop, Washington, DC
  - Nov 12-16 Soil Science Society of American Annual Meeting, Indianapolis, IN; <http://www.indy.org>
  - Nov 13-17 3rd International Fire Ecology and Management Congress, San Diego, CA; <http://emmfs.wsu.edu/firecongress/>
  - Nov 14-16 SRS Management Team Meeting, joint with Region 8; Atlanta.
  - \*Dec 11-16 American Geophysical Union Fall meeting, San Francisco; session on "Impact of Climate Variability and Extreme Weather on Ecosystem Structure and Function Across Spatiotemporal Scales" <http://submissions4.agu.org/submission/entrance.asp>
- ### 2007
- \*Jan 30-Feb 1 Southern Research Station All Scientists Meeting; location TBD
  - Jan 31-Feb 3 International Meeting of Fire Effects on Soil Properties, Barcelona. <http://www.ub.edu/gram/>
  - Feb 26-Mar 1 14th Biennial Southern Silvicultural Research Conference, Athens, GA;
  - \*Mar 6-8 2007 Wildland Urban Interface Conference, Reno, Nevada; Call for Presentations Deadline August 10; [www.iafc.org/wui](http://www.iafc.org/wui)
  - Apr 18-19 IUFRO conference Leading Forestry Research in an Era of Globalization (tentative title); Washington, DC
  - May 13-17 4th International Wildland Fire Conference, Sevilla, Spain; [http://www.fire.uni-freiburg.de/course/meeting/2007/meet2007\\_01.htm](http://www.fire.uni-freiburg.de/course/meeting/2007/meet2007_01.htm)
  - May 14-18 IUFRO Forest Landscape Restoration Conference, Seoul, South Korea; venue is COEX in Seoul; <http://www.coex.co.kr/>
  - May? North American Forest Biology Workshop, hosted by the Hard wood Tree Improvement and Regeneration Center, Purdue University; <http://www.agriculture.purdue.edu/fnr/HTIRC/>

## Upcoming Events:

Jun 6-8	EastFire II Conference, George Mason University, Fairfax, VA; <a href="http://eastfire.gmu.edu/temp/eastfirewatch/conference.htm">http://eastfire.gmu.edu/temp/eastfirewatch/conference.htm</a>	<b>2008</b>	
Summer	6th North American Forest Ecology Workshop, to be held in British Columbia	*Oct 5-9	Soil Science Society of America Annual Meeting, joint with Geological Society of America, Houston, TX
Jun 10-14	10th International Congress on Biotechnology in the Pulp and Paper Industry, Madison, WI; <a href="http://www.bact.wisc.edu/ICB PPI_2007/">http://www.bact.wisc.edu/ICB PPI_2007/</a>	Nov 5-9	Society American Foresters Annual Meeting, Reno, NV.
*Aug 5-10	Joint meeting of the Society for Ecological Restoration and the Ecological Society of America, San Jose, CA; <a href="http://esa.org/san_jose/symposiumProposals.php">http://esa.org/san_jose/symposiumProposals.php</a>	<b>2009</b>	
		*Nov 1-5	Soil Science Society of America Annual Meeting, Pittsburgh, PA World Forestry Congress, Buenos Aires, Argentina
		<b>2010</b>	
*Sep 30-Oct 3	Faculty of Forestry, University of Toronto Centennial Conference "Global Vision of Forestry in the 21st Century," Toronto, Canada; <a href="http://www.forestry.utoronto.ca/centennial/int_congress.htm">http://www.forestry.utoronto.ca/centennial/int_congress.htm</a>		IUFRO World Congress, Seoul, Republic of Korea
Oct 24-28	Society American Foresters Annual Meeting, Portland, OR.		
Nov 4-8	Soil Science Society of American AAnnual Meeting, New Orleans, LA; <a href="http://www.neworleanscvb.com">http://www.neworleanscvb.com</a>		

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### GPRA -Accomplishment

Category	FY 2004 Total	FY 2005 Total	FY 2006 To Date
Number of Refereed Journal Publications	20	21	32
Number of Non-Refereed Publications (include abstracts)	89	60	62
Number of Publications (refereed + non-refereed)	109	81	94
Number of Tours	41	40	31
Number of Short Courses/Training	20	13	23
Number of Invited Presentations to Scientific Organizations	12	7	19
Number of Invited Presentation to Lay Organizations	30	32	25
Volunteer Presentations to Scientific Organizations (non-GPRA	42	50	19
Number of Technology Transfer Activities (other than above)	105	132	91
Outside Funding	\$2,610,574	\$3,688,734	\$2,092,253

### SRS-4104 Project Leader's Report

John Stanturf - Editor Lynne Breland - Technical Writer  
Patricia A. Outcalt - Production, Design and Layout

